Drawing Amendments

There are no amendments to the drawings.

Remarks

This a full and timely response to the outstanding Office Action mailed on 02/10/2006. In response, please enter the amendments and consider the following remarks. The Office Action rejected claim 11 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Further, claims 1, 4, 11, 19, and 27-30 were rejected as being unpatentable under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,521,967 of R.G. Novas, et. al (hereafter referred to as Novas). Also, claims 6-10, 12-16, 22-26, and 31 were rejected under 35 U.S.C. §103 as unpatentable over Novas in view of U.S. Patent No. 6,088,428 of D. Trandal, et. al (hereafter referred to as Trandal). Claims 11 and 19 are being amended. Claim 19 is being amended to make it dependent on claim 17 rather than canceled claim 18 that had been canceled in a previous Office Action. No claims are cancelled in this response.

Rejection of Claim 11 under 35 U.S.C. §112, Second Paragraph

This rejection is respectfully traversed. The Office Action has rejected claim 11 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out

and distinctly claim the subject matter which applicant regards as the invention. Amended claim 11 overcomes this rejection.

Rejection of Claims 1-5 under 35 U.S.C. §102(b)

Claim 1 recites:

A method for performing call classification for a destination endpoint on a call, comprising the steps of:

receiving audio information from the destination endpoint;

analyzing using automatic speech recognition analysis calculations the received audio information for words;

analyzing using the automatic speech recognition analysis calculations the received audio information for tones; and

determining a call classification for the destination endpoint in response to the analysis of the words and the analysis of the tones.

The Office Action states:

> Regarding claims 1 and 17, Novas teaches a method for performing call classification for a destination endpoint on a call, comprising the steps of: receiving audio information from the destination endpoint analyzing using speech recognition analysis calculations the received audio information for words (Col. 5, lines 50-60);
>
> Analyzing using the automatic speech recognition analysis calculations the received audio information for tones (Col. 5, lines 60-67, Col. 6, lines 8-2, and Col. 9, lines 31-40); and
>
> Determining a call classification for the destination endpoint in response to the analysis of the words and the analysis of the tones (42 FIG. 2, FIG. 11(a)-11(b), and Col. 40).

The first cited text from Novas states:

> The second situation is to recognize telephone pickup. In this case, when the call progress monitor is initiated by a recognize situation command to recognize telephone pickup, the situation terminates with a success status when voice is detected followed by silence. For example, if the party answering the telephone call says "Hello?", the situation terminates a short time after the end of the "Hello" utterance. Studies have shown that residential telephones are typically answered with a 0.5-2 second utterance; business telephones answered with a 2-5 second

> utterance; and answering machines answered with a 5-15 second announcement.

The cited text does not disclose or suggest that speech recognition analysis calculations are utilized to determine that voice is being detected. In fact, FIG. 3 clearly illustrates that a voice filter (24), which is detecting for 800 Hz power, is utilized to detect the presence of voice. This is explained in greater detail in Col. 8, lines 9 through 58 which make it clear that voice recognition is not being utilized to determine a voice utterance but rather the voice is being detected by the presence of energy at the appropriate frequencies for human speech. There is no disclosure or suggestion in Novas that speech recognition analysis calculations are performed to detect for the presence of speech. In fact, Novas does not disclose or suggest any type of automatic speech recognition analysis calculations but rather only discloses the use of filters to detect speech or tones.

The second cited text from Novas which is alleged to disclose automatic speech recognition analysis calculations for tones states:

> The second situation detects and measures the voice duration (up to a significant pause) to allow each type of answering party/line to be distinguished. The second situation terminates with a fail status if a busy signal or a special information signal is recognized. Furthermore, the type of signal causing the fail termination is identified. The situation also terminates with a fail status if ringing is not detected to be present if, for example prior to pickup, the telephone line has gone dead. (Col. 5, lines 60-67)
>
> The above described situation definitions are typical examples. The call progress monitor algorithm according to the present invention accepts definitions of various kinds as data so

> that modifications can be made to the definitions without requiring change in the algorithm.
>
> The signal flow through the call progress monitor algorithm is shown in detail in FIG. 2. The algorithm is hierarchically arranged having three major layers: tone detection, signal recognition and situation recognition. The algorithm shown in FIG. 2 is performed by software and can be implemented in a conventional but powerful personal computer or more preferably in a digital signal processor such as the DSP-32C Processor by AT&T. Furthermore, data required for and generated during implementation of the algorithm is stored in a memory forming a part of the call progress monitor. (Col. 6, lines 8-29)
>
> While only nine signals are listed (aside from silence, unknown and raw high energy), it is to be understood that many more types of signals can be defined and recognized by the call progress monitor algorithm according to the present invention, including Dual Tone Multiple Frequency (DTMF), Multiple Frequency (MF), facsimile machine and other special signals such as the coin "bong" tone used by pay telephones. The signals listed in Table A1 of this application are considered to augment those listed in Table A1 of the prior application. For example, "PAGER" tones and "FAX" tones are defined in the signal definitions in the present application. (Col. 9, lines 31-40)

As can be seen by the above cited text, Novas does not suggest or disclose the utilization of speech recognition analysis calculations for detecting tones. Although not in the above cited text, in other parts of Novas, it is clear that tones and speech are determined by the implementation of filters by the DSP. This fact is clearly stated at Col. 3, lines 2-16.

In summary, Novas does not anticipate claim 1 under 35 U.S.C. §102(b). Claims 2-5 are directly or indirectly dependent from claim 1 and are patentable for at least the same reasons as claim 1.

Rejection of Claim 11 under 35 U.S.C. §102(b)

Amended claim 11 is patentable under 35 U.S.C. §102(b) for the same reasons as amended claim 1.

Rejection of Claims 17-21 under 35 U.S.C. §102(b)

Claim 17 and claims 18, 19 and 21, as presently in the application, are patentable under 35 U.S.C. §102(b) for the same reasons as claims 1-5.

Rejection of Claims 27-29 under 35 U.S.C. §102(b)

Claim 27 is patentable under 35 U.S.C. §102(b) for reasons similar to those set forth for claim 1. Claims 28 and 29 are directly or indirectly dependent on claim 27 and are patentable for at least the same reasons. Claim 30 had been previously withdrawn.

Rejection of Claims 6-10 under 35 U.S.C. §103(a)

Claims 6-10 are directly or indirectly dependent on claim 1 and are patentable for at least the same reasons as claim 1. Claim 1 is also patentable under 35 U.S.C. §103(a) over Novas in view of Trandal. The Office Action states that "Trandal discloses using a hidden Markov Model to determine the presence of words and/or tones in audio information (Col. 8, lines 16-27 and Col. 23, lines 17-28). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the hidden Markov Model as taught by Trandal to determine the presence of words or tones. One of ordinary skill in the art would have been motivated to do this because the hidden Markov Model is a common and well-

known algorithm for recognizing speech as disclosed in Novas speech recognition system". Trandal does disclose using a Hidden Markov Model to identify words but not to identify tones. The cited text at Col. 8, lines 16-25 states:

> Over a frame duration, the DSP processes the signals represented by the received frames and transmit frames, for each channel of activity, as directed by DSP software in the program store. The DSP can perform several different types of processing including speech encoding and decoding, companding, tone detection and generation, speech recognition, text-to-speech conversion, etc. All require DSP processing or computation. Thus, the frame duration determines the maximum total number of computations possible per frame of transmit and receive data.

The cited text clearly does not state that the tone detection is being performed using any type of speech recognition but rather that tone detection is just one of a number of operations that the DSP can perform.

The cited text at col. 23, lines 17-28 states:

> If no DTMF digits are detected then state 548 is entered to process a voice utterance by the subscriber. As described in detail below, the DSP generates a hidden Markov model template for the utterance and compares the input template to the subscriber's stored template which was generated in the enrollment mode described above. In one preferred embodiment the DSP is also provided with means, in a subroutine of a stored program, to provide a subscriber with access to a mailbox extension. If extension service is enabled then control is passed on branch 552 to state 720 (not shown in detail) to process access to a mailbox extension.

Clearly, the cited text has no disclosure or suggestion of using any type of speech recognition technique to identify tones. Applicants would appreciate it if the Examiner would point out how the above cited text discloses any type of speech recognition for identify tones. Claim 1 is patentable under 35

U.S.C. §103(a) over Novas in view of Trandal. Claims 6-10 are directly or indirectly dependent on claim 1 and are patentable for at least the same reasons as claim 1.

Rejection of Claims 12-16 under 35 U.S.C. §103(a)

Claims 12-16 are directly or indirectly dependent on amended claim 11 and are patentable under 35 U.S.C. §103(a) over Novas in view of Trandal for similar reasons as those set forth for claims 6-10.

Rejection of Claims 22-26 under 35 U.S.C. §103(a)

Claims 22-26 are directly or indirectly dependent on claim 17 and are patentable under 35 U.S.C. §103(a) over Novas in view of Trandal for similar reasons as those set forth for claims 6-10.

Rejection of Claim 31 under 35 U.S.C. §103(a)

Claim 27 is patentable under 35 U.S.C. §103(a) over Novas in view of Trandal for similar reasons as those set forth for claim 1. Claim 31 is directly dependent on claim 27 and is patentable for least the same reasons.

Summary

In view of the foregoing, applicants respectfully request consideration of amended claims 11 and 19, reconsideration of claims 1, 4, 6, 7, 8, 9, 10, 12-16, 17, 22, 23, 25, 26, 27, 29, and 31, as presently in the application, and allowance of these claims.

Although the foregoing is believed to be dispositive of the issues in the application, if the Examiner believes that a telephone interview would advance the prosecution, the Examiner is invited to call applicants' attorney at the telephone number listed below.

Respectfully,

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